

AMENDMENT

IN THE CLAIMS:

63

Please cancel Claims 36 and 63 and non-elected Claims 44-45, 48-49, 51, 72, 74, 77-78, and 80, without prejudice or disclaimer.

Please amend Claims 25, 35, 39, 43, 46, 52, 62, 71, 75, 79, 81, 83, 86, and 89, and add new Claims 91-100. A complete list of the claims is as follows:

1-24. (Previously Canceled)

25. (Currently Amended) An encapsulated product comprising: discrete, solid particles having a substantially uniform shape and a diameter of up to about 10 mm, wherein each particle comprises:

a dispersion of an encapsulant dispersed within throughout a substantially homogeneous plasticized mass, and at least one component for controlling the rate of release of the encapsulant,

wherein said encapsulant is at least one pharmaceutical component, neutraceutical component, nutritional component, fragrance component, or biologically active component,

wherein said plasticized mass comprising comprises at least about 40% by weight of at least one plasticized matrix material, based on the weight of the final product, and at least one plasticizer, and

at least one component for controlling the rate of release of the encapsulant,

wherein the encapsulant and plasticized matrix material form an at least substantially homogeneous mixture, and

wherein the amount of said encapsulant is from about 1% by weight to about 85% by weight, based upon the weight of the matrix material.

AMENDMENT

26. (Withdrawn) An encapsulated product according to claim 25 wherein said plasticized matrix material comprises an at least partially gelatinized starch, which starch is not substantially dextrinized.

27. (Original) An encapsulated product according to claim 25 wherein said encapsulant is coated with a film-forming material prior to dispersion within said plasticized mass.

28. (Original) An encapsulated product according to claim 25 wherein said particles are in the form of a tablet, or a pellet.

D | 29. (Original) An encapsulated product according to claim 28 wherein said particles are coated with a film-forming material.

30. (Original) An encapsulated product according to claim 25 wherein said at least one release-rate controlling component is a hydrophobic component.

31. (Original) An encapsulated product according to claim 30 wherein said hydrophobic component is at least one member selected from the group consisting of fats, oils, waxes, fatty acids, emulsifiers, polyolefins, paraffin, polyvinyl acetate and derivatives thereof, and modified starches.

32. (Original) An encapsulated product according to claim 25 wherein said at least one release-rate controlling component is a high water binding capacity component.

AMENDMENT

33. (Original) An encapsulated product according to claim 32 wherein said high water binding capacity component is selected from the group consisting of gelatin, proteins, and hydrocolloids.

34. (Original) An encapsulated product according to claim 25 which has a specific density of from about 800 g/liter to about 1500 g/liter.

35. (Currently Amended) An encapsulated product according to claim 25 wherein the length-to-diameter (l/d) ratio of said particles is from about 0.1 to about 10.

36. (Currently Canceled)

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37. (Original) An encapsulated product according to claim 25 wherein said particles have a substantially non-expanded, substantially non-cellular structure.

38. (Original) An encapsulated product according to claim 25 wherein said encapsulant is released in an aqueous or gastric juice environment in an amount of no more than from about 10% in about 1 hour to no less than about 90% in about 24 hours.

39. (Currently Amended) An encapsulated product according to claim 25 wherein:

the amount of the matrix material is from about 60% by weight to about 95% by weight, based upon the weight of the final product, and

the amount of said at least one component used to control the rate of release of the encapsulant is from about 5% by weight to about 50% by weight, based upon the weight of the matrix material, and the amount of said encapsulant is from about 1% by weight to about 85% by weight, based upon the weight of the matrix material.

AMENDMENT

40. (Original) An encapsulated product according to claim 39 wherein said particles have a diameter of from about 0.5 mm to about 5 mm and a length-to-diameter ratio of about 0.5 to about 2.

~~41.~~ (Withdrawn) An encapsulated product according to claim 25 wherein said matrix material comprises a protein.

42. (Original) An encapsulated product according to claim 25 wherein said plasticized matrix comprises durum wheat or semolina.

D | 43. (Currently Amended) An encapsulated product as claimed in claim 25 wherein said encapsulant is at least one member selected from the group consisting of: acepromazine, acetaminophen, acetohexamide, acetohydroxamic acid, acetylcholine, acetyl cysteine, acyclovir, albendazole, alclometasone dipropionate, allopurinol, alprazolam, alprostadil, amcinoide, amantadine, amdinocillin, amikacin, amiloride, aminocaproic acid, aminophylline, aminosalicylate , aminosalicylic acid, amitriptyline hydrochloride, ammonium chloride, amobarbital, amodiaquine hydrochloride, amoxapine, amoxicillin, amphetamine sulfate, amphotericin, ampicillin, amrolium, acetazolamide, acetyldigoxin, acetylsalicylic acid, anileridine, anthraline, antipyrine, antivenin, apomorphine, apraclonidine, ascorbic acid, aspirin, acromycin, atropine, amoxicillin, anipamil, azaperone, azatadine maleate, azathioprine, azithromycin, aztreonam, bacampicillin, bacitracin, baclofen, barium salts, beclomethasone dipropionate, belladonna extract, bendroflumethiazide, benoxinate hydrochloride, benzethonium chloride , benzocaine, benzonataate, benzthiazide, benztropine mesylate, betain, betamethasone, betaxolol, betanechol chloride, biotin, biperiden, bisacodyl, bismuth, botulism antitoxin, bromocriptine mesylate, bromodiphenhydramine hydrochloride, bumetanide, bupivacaine, busulfan, butabarbital sodium, butalbital,

AMENDMENT

combinations of butalbital, caffeine and aspirin and codeine, beta-carotene, calcifediol, calcium carbonate, calcium citrate, calcium salts, candididin, captopril, carbachol, carbamazepine, carbenicillin indanyl sodium, carbidopa, carboxinoxamine maleate, carboprost tromethamine, carboxymethylcellulose, carisoprodol, casanthranol, cascara, castor oil, cefaclor, cefadroxil, cefamandole nafate, cefazolin, cefixime, cefoperazone, cefotaxime, cefprozil, ceftazidime, cefuroxime axetil, cephalexin, cephradine, chlorambucil, chloramphenicol, chlordiazepoxide, chloroquine phosphate, chlormadinone acetate, chlorothiazide, chlorpheniramine maleate, chloroxylenol, chlorpromazine, chlorpropamide, chlorprothixene, chlorprothixene, chlortetracycline bisulfate, chlortetracycline hydrochloride, chlorthalidone, chlorzoxazone, cholecalciferol, cholera vaccine, chromic chloride, chymotrypsin, cimetidine, cinoxatin, cinoxate, ciprofloxacin, cisplatin, clarithromycin, clavulanate potassium, clemastine fumarate, clidinium bromide, clindamycin hydrochloride, -palmitate and -phosphate, clioquinol, clofazimine, clofibrate, clomiphene citrate, clonazepam, cinnarizine, clonidine hydrochloride, clorsulon, clotrimazole, cloxacillin sodium, cyanocobalamin, cocaine, coccidioidin, cod liver oil, codeine, colchicine, colestipol, corticotropin, cortisone acetate, cyclacillin, cyclizine hydrochloride, cyclobenzaprine hydrochloride, cyclophosphamide, cycloserine, cyclosporine, cyproheptadine hydrochloride, cysteine hydrochloride, danazol, dapsone, dehydrocholic acid, demeclocycline, desipramine, desoximetasone, desoxycorticosterone acetate, dexamethasone, dexchlorpheniramine maleate, Dexpanthenol, dextroamphetamine, dextromethorphan, diazepam, diazoxide, dibucaine, dichlorphenamide, dicloxacillin sodium, dicyclomine, dienestrol, diethylpropion hydrochloride, diethylstilbestrol, diflunisal, digitalis, dicoumarol, digitoxin, digoxin, dihydroergotamine, dihydrostreptomycin, dihydrotachysterol, dihydroxyaluminium aminoacetate, dihydroxyaluminium sodium carbonate, diltiazem hydrochloride, dimenhydrinate, dimercaprol, diphenhydramine hydrochloride, diphenoxylate hydrochloride, diphtheria antitoxin, dipyridamole, disopyramide phosphate, disulfiram,

AMENDMENT

dobutamine hydrochloride, docusate calcium, docusate sodium, dopamine hydrochloride,
doxepin hydrochloride, doxycycline, doxycycline hydrate, doxylamine succinate,
dronabinol, droperidol, drotaverine, dydrogesterone, dyphylline, guaifenesin, enalapril
maleate, analaprilat, ephedrine, epinephrine, equilin, ergocalciferol, ergoloid mesylates,
ergonovine maleate, ergotamine tartrate, erythrityl tetranitrate, erythromycin, estradiol,
estriol, estrogene, estrone, estropipate, ethcrynic acid, ethambutol hydrochloride,
ethchlorvynol, ethinyl estradiol, ethionamide, ethopropazine hydrochloride , ethotoxin,
ethynodiol diacetate, etidronate disodium, etoposide, eugenol, famotidine, fenoprofen,
ferrous fumarate, ferrous gluconate, ferrous sulfate, flucytosine, fludrocortisone acetate,
flunisolide, fluocinolone acetonide, fluocinonide, fluorescein sodium, fluorometolone,
fluorouracil, fluoxymesterone, fluphenazine, flurandrenolide, flurazepam, flurbiprofen,
folic acid, furazolidone, flunitrazepam, furosemide, gemfibrozil, gentamicin, gentian
violet, glutarate, glutethimide, glycopyrrolate, chorionic gonadotropin, gramicidin,
griseofulvin, guaifenesin, guanabenz, guanadrelsulfate, halazone, haloperidol, haloprogin,
halothane, heparin calcium, hepatitis virus vaccine, hetacillin potassium, hexylresorcinol,
histamine phosphate, histidine, homatropine, histoplasmin, hydralazine hydrochloride,
hydrochlorothiazide, hydrocodone bitartrate, hydrocortisone, hexobarbital,
hydroflumethiazide, hydromorphone hydrochloride, hydroquinone, hydroxocobalamin,
hydroxyamphetamine, hydroxychloroquine sulfate, hydroxyprogesterone caproate,
hydroxyurea, hydroxine hydrochloride, hydroxine pamoate, hyoscyamine, hyoscyamine
sulfate, ibuprofen, ifosfamide, imipramide, imipramide hydrochloride, indapamide,
indomethacin, insulin, inulin, iocetamid, iodoquinol, iohexol, iopamidol, ipecac, ipodate
calcium, ipodate sodium, isocarboxacid, isoetharine hydrochloride, isoflurane, isoniacid,
isopropamide iodine, isoproterenol hydrochloride, isosorbide dinitrate, isotretinoin,
isoxsuprine hydrochloride, kanamycin sulfate, ketoprofen, ketoconazole, labetalol
hydrochloride, lanolin, leucine, leucovorin calcium, levamisole hydrochloride,
levocarnithine, levodopa, levonorgestrel, levorphanol tartrate, levothyroxine sodium,

AMENDMENT

D | lidocaine, lincomycin hydrochloride, lindane, liothyronine sodium, liotrix, lisinopril, lithium carbonate, loperamide hydrochloride, loracarbef, lonetil, lorazepam, lovastatin, loxapine, lysine, mafenide acetate, magaldrate, magnesium carbonate, magnesium chloride, magnesium gluconate, magnesium oxide, other magnesium salts, malathion, manganese salts, manganese, maprotiline hydrochloride, mazindol, measles virus vaccine, mebendazole, mebuprofenin, mecamylamine hydrochloride, meclizine hydrochloride, mecloxycline, meclofenamate sodium, medroxyprogesterone acetate, mefenamic acid, megestrol acetate, meglumine, melphalan, menadiol sodium diphosphate, menadione, menotropine, meperidine, mephenytoin, mephobarbital, meprednisone, meprobamate, mercaptopurine, mesoridazine besylate, mestranol, metaproterenol sulfate, metaraminol bitartrate, methacycline hydrochloride, methadone hydrochloride, methamphetamine hydrochloride, methazolamide, methdilazine, methenamine, methicillin sodium, methimazole, methionine, methocarbamol, methotrexate, methoxsalen, methoxyflurane, methsuximide, methyclothiazide, methylbenzethonium chloride, methyldopa, methylergonovine maleate, methylphenidate hydrochloride, methylprednisolone, methyltestosterone, methysergide maleate, metoclopramide, metolazone, meoprolol tartrate, metronidazole, metyrapone, metyrosine, mexiletine hydrochloride, mexiletine hydrochloride, miconazole, minocycline hydrochloride, minoxidil, mitomycin, mitotane, molindone hydrochloride, monobenzone, morphine sulfate, mupirocin, medazepam, nefruside, methandrostenolone, methylsulfadiazine, nadolol, nafcillin, nafcillin sodium, nalidixic acid, nalorphine, naloxone, nandrolone decanoate, nandrolone phenpropionate, naproxen, natamycin, neomycin, neomycin sulfate, neostimine bromide, niacin, nitrofurantoin, nalidixic acid, nifedipine, nitrazepam, nitrofurantoin, nitroglycerine, nitromerson, nizatidine, nonoxynol 9, norethindrone, norethindrone acetate, norfloxacin, norgestrel, nortriptyline hydrochloride, noscapine, novobiocin sodium, nystatin, opium, oxacillin sodium, oxamniquine, oxandrolone, oxazepam, oxprenolol hydrochloride, oxtriphylline, oxybenzone, oxybutynin chloride, oxycodone hydrochloride, oxycodone,

AMENDMENT

oxymetazoline hydrochloride, oxymetholone, oxymorphone hydrochloride,
oxyphenbutazone, oxytetracycline, padimate, ~~panreatin~~ pancreatin, pancrelipase, papain,
panthenol, papaverin hydrochloride, parachlorophenol, paramethasone acetate, paregoric,
paromomycin sulfate, penicillamine, penicillin, penicillin derivatives, pentaerythritol
tetranitrate, pentazocine, pentazocine hydrochloride, pentazocine salts, pentobarbital
sodium, perphenazine, pertussis, phenacetamide, phenazopyridine hydrochloride,
phenidmetrazine tartrate, phenelzine sulfate, phenmetrazine hydrochloride,
phenobarbital, phenolphthalein, phenoxybenzamine hydrochloride, phentermine
hydrochloride, phenylalanine, phenylbutazone, phenylephrine hydrochloride,
phenylpropanolamine hydrochloride, physostigmine, phytonadione, pilocarpine ,
D1
pimozide, pindolol, piperazine, piroxicam, plicamycin, poliovirus vaccine inactivated,
polycarbophil, polymyxin b sulfate, polythiazide, potassium chloride, potassium citrate,
potassium gluconate, potassium iodine, potassium sodium tartrate, povidone iodine,
pralidoxime chloride, pramoxine hydrochloride, pramezam, prazepam, praziquantel,
prazosin hydrochloride, prazosin hydrochloride, prednisolone, prilocaine, primaquine,
primidone, probenecid, probucol, procainamide hydrochlorid, procaine hydrochloride,
procabacine hydrochloride, prochlorperazine, prochlorperazine maleate, procyclidine
hydrochloride, progesterone, proline, promazine, promazine hydrochloride, promazine,
promethazine, promethazine hydrochloride, propafenone hydrochloride, propantheline,
proparacaine hydrochloride, propoxycaine hydrochloride, propoxyphene hydrochloride,
propoxyphene napsylate, propanolol hydrochloride, propylidone, propylthiouracil,
propylthiouracil, protriptyline hydrochloride, pseudoephedrine hydrochloride, pumice,
pyrantel pamoate, pyrazinamide, pyrethrum extract, pyridostigmine bromide, pyridoxine
hydrochloride, pyrilamine maleate, pyrimethamine, pyroxylin, pyrinium pamoate,
phenacetin, phenytoin, prednisone, quinidine gluconate, quinidine sulfate, rabies vaccine,
racepinephrine, ranitidine, rauwolfia serpentina, resorcinol, ribavirin, riboflavin,
rifampin, ritodrine, rubella virus vaccine, saccharin, saccharin sodium, salicylamide,

AMENDMENT

D1
salicylic acid, salsalata, scopolamine, secobarbital sodium, selenius acid, selenium sulfate, sennaserine, simethicone, sodium ascorbate, sodium bicarbonate, sodium fluoride, sodium gluconate, sodium iodide, sodium lactate, sodium nitrite, sodium ditroprusside, sodium salicylate, spironolactone, stannozolol, streptomycin, sucralfate, sulfacetamide, sulfadiazine, reserpine, sulfadioxine, sulfamerazine, sulfamethazine, sulfamethizole, sulfamethoxazole, sulfamethoxydiazine, sulfapyridin, sulfasalazine, sulfaperin, sulfathiazole, sulfisoxazole, sulfisopyrazone, sulindac, suprofen, stilains, tamoxifen citrate, temacepam, terbutaline sulfate, terfenadine, terpin, testolacton, testosterone, tolazamide, tolbutamide, tetracaine, tetracycline, tetrahydrocyclyne, theophylline, thiabendazole, thiamine hydrochloride, thiamin, thiamylal, thiethylperazine thimerosal, thioguanine, thioridazine hydrochloride, thistrepton, thiotepea, thiothixene, threonine, thyroid, ticarcillin, timolol, tioconazole, titanium dioxide, tolazamide, tolbutamide, tolmetin, tolnaftate, trazodone hydrochloride, tretinoin, triacetin, triamcinolone, triamterene, triazolam, trichorfon, trichlormethiazide, trientine hydrochloride, trifluoperazine hydrochloride, triflupromazine, trihexyphenidyl hydrochloride, trimeprazine tartrate, trimethadione, trimethobenzamide hydrochloride, trimethoprim, trioxsalen, tripelennamine, triprolidine, trisulfapyrimidine, tropicamide, trypsin, tryptophan, tuberculin, tyloxapol, tyropanoate sodium, tyrosine, tyrothricin, thyrothricin betamethasone, thiotic acid, sotalol, salbutamol, norfenefrine, silymarin, dihydroergotamine, buflomedil, etofibrate, indomethacin, urea, valine, valproic acid, vancomycin hydrochloride, vasopressin, verapamil, vidarabine, vinblastine, vincristine, vitamins, warfarin, yellow fever vaccine, zinc acetate, zinc carbonate, zinc chloride, zinc gluconate, beta acetyl digoxin, haloperidol, ISMN, amitriptylin, diclofenac, nifedipine, verapamil, pyritinol, nitrendipin, doxycycline, bromhexine, methylprednisolone, clonidine, fenofibrate, allopurinol, pirenepine, levothyroxin, tamoxifen, methyldigoxin, o-(beta-hydroxymethyl)-rutoside, propicillin, aciclovir mononitrate, paracetamol, naftidrofuryl, pentoxifylline, propafenone, acebutolol, L-thyroxin, tramadol,

AMENDMENT

bromocriptine, loperamide, ketotifen, fenoterol, cadobelisate, propanolol, enalaprilhydrogen maleate, bezafibrate, ISDN, gallopamil, xantinol nicotinate, digitoxin, flunitrazepam, bencyclane, dexapanthenol, pindolol, lorazepam, diltiazem, piracetam, phenoxyethylpenicillin, furosemide, bromazepam, flunarizin, erythromycin, metoclopramide, acemetacin, ranitidin, biperiden, metamizole, doxepin, dipotassium chloroazepate, tetrazepam, estramustine phosphate, terbutaline, captopril, maprotiline, prazosin, atenolol, glibenclamide, cefaclor, etilfrine, cimetidine, theophylline, hydromorphone, ibuprofen, primidone, clobazam, oxaceprol, medroxyprogesterone, flecainid, pyridoxal 5 phosphate glutamate, hymecromone, etofylline clofibrate, vincamine, cinnarizine, diazepam , ketoprofen, flupentixol, molsimine, glibornuride, dimetinden, melperone, soquinolol, dihydrocodeine, clomethiazole, clemastine, glisoxepide, kallidinogenase, oxyfedrine, baclofen, carboxymethylcysteine, thioridazine, betahistine, L-tryptophan, murtol, bromelaine, prenylamine, salazosulfapyridine, astemizol, sulpiride, benzerazide, dibenzepine, acetylsalicylic acid, miconazol, nystatin, ketoconazole, sodium picosulfate, coltyramine, gemfibrocil, rifampicin, fluocortolone, mexiletin, amoxicillin, terfenadrin, mucopolysaccharide polysulfate, triazolam, mianserin, tiaprofenic acid, amezinium methylsulfate, mefloquine, probucol, quinidine, carbamazepine, L-aspartate, penbutolol, piretanide, aescin, amitriptyline, cyproterone, sodium valproinate, mebeverine, bisacodyl, 5-aminosalicylic acid, dihydralazine, magaldrate, phenprocoumon, amantadine, naproxen, carteolol, famotidine, methyldopa, auranofine, estriol, nadolol, levomepromazine, doxorubicin, medofenoxate, azathioprine, flutamide, norfloxacin, fendiline, and prajmalium bitartrate.

44-45. (Currently Canceled)

46. (Currently Amended) An encapsulated product according to claim 25 wherein said encapsulant is at least one member selected from the group consisting of

AMENDMENT

antioxidants, phytochemicals, hormones, vitamins, pro-vitamins, minerals, microorganisms, prebiotics, probiotics, trace elements, essential and/or highly unsaturated fatty acids, antibiotics, nutritional supplements, enzymes, formations formulations containing zidovudine, macromolecular polypeptides, aromatic nitro and nitroso compounds and their metabolites useful as anti-viral and anti-tumor agents, HIV protease inhibitors, antibiotics, viruses, pigments, steroids, oligopeptides, dipeptides, amino acids, flavor components, fragrance components, detergents and surface-active components, lipid derivatives of phosphonatides, amphiphilic polymers, adenosine derivatives, sulfated tannins, monoclonal antibodies, and metal complexes of water-soluble texathyrin.

① 47. (Original) An encapsulated product according to claim 25 wherein said encapsulant is at least one member selected from the group consisting of herbicides, pesticides, insecticides, rodenticides, and fungicides.

48-49. (Currently Canceled)

50. (Withdrawn) An encapsulated product according to claim 25 wherein said plasticized matrix material is at least one member selected from the group consisting of starches, cyclodextrins, dextrins, monosaccharides, disaccharides, polyvinylpyrrolidone, copolymers of N-vinylpyrrolidone and vinyl acetate, polyvinyl alcohol, cellulose esters, cellulose ethers, and polyethylene glycol.

51. (Currently Canceled)

AMENDMENT

52. (Currently Amended) An encapsulated product comprising:
discrete, solid particles having a substantially uniform shape wherein each particle
comprises:

~~a uniform dispersion of an encapsulant dispersed within throughout a substantially homogeneous plasticized matrix material, and at least one component for controlling the rate of release of the encapsulant,~~

wherein said encapsulant comprises at least one pharmaceutical component, neutraceutical component, nutritional component, fragrance component, or biologically active component,

wherein said matrix material comprises comprising at least one member selected from the group consisting of durum wheat, semolina, wheat flour, wheat gluten, soy protein, hydrocolloids, casein, and gelatin, and at least one plasticizer, and

at least one component for controlling the rate of release of the encapsulant,

wherein the encapsulant and plasticized matrix material form an at least substantially homogeneous mixture, and

wherein the amount of said encapsulant is from about 1% by weight to about 85% by weight, based upon the weight of the matrix material.

~~53. (Withdrawn) An encapsulated product according to claim 52 wherein said plasticized matrix material comprises an at least partially gelatinized starch, which starch is not substantially dextrinized.~~

54. (Original) An encapsulated product according to claim 52 wherein said encapsulant is coated with a film-forming material prior to dispersion within said plasticized mass.

AMENDMENT

55. (Original) An encapsulated product according to claim 52 wherein said particles are in the form of a tablet, or a pellet.

56. (Original) An encapsulated product according to claim 52 wherein said particles are spherical.

57. (Original) An encapsulated product according to claim 55 wherein said particles are coated with a film-forming material.

58. (Original) An encapsulated product according to claim 52 wherein said at least one release-rate controlling component is a hydrophobic component.

59. (Original) An encapsulated product according to claim 58 wherein said hydrophobic component is at least one member selected from the group consisting of fats, oils, waxes, fatty acids, emulsifiers, polyolefins, paraffin, polyvinyl acetate and derivatives thereof, and modified starches.

60. (Original) An encapsulated product according to claim 52 wherein said at least one release-rate controlling component is a high water binding capacity component.

61. (Original) An encapsulated product according to claim 52 which has a specific density of from about 800 g/liter to about 1500 g/liter.

62. (Currently Amended) An encapsulated product according to claim 52 wherein the length-to-diameter (l/d) of said particles is from about 0.1 to about 10.

63. (Currently Canceled)

AMENDMENT

64. (Original) An encapsulated product according to claim 52 wherein said particles have a substantially non-expanded, substantially non-cellular structure.

65. (Original) An encapsulated product according to claim 52 wherein said encapsulant is released in an aqueous or gastric juice environment in an amount of no more than from about 10% in about 1 hour to no less than about 90% in about 24 hours.

66. (Original) An encapsulated product according to claim 52 wherein the amount of said at least one component for controlling the rate of release of the encapsulant is up to about 70% by weight, based on the weight of the matrix material.

D/ 67. (Original) An encapsulated product according to claim 52 wherein said particles have a diameter of from about 0.5 mm to about 5 mm and a length-to-diameter ratio of about 0.5 to about 2.

68. (Withdrawn) An encapsulated product according to claim 52 wherein said matrix material comprises a protein.

69. (Original) An encapsulated product according to claim 52 wherein said matrix material comprises at least one member selected from the group consisting of durum wheat, semolina, wheat flour, wheat gluten, and soy protein.

70. (Original) An encapsulated product according to claim 52 wherein said matrix material comprises at least one member selected from the group consisting of durum wheat and semolina.

AMENDMENT

71. (Currently Amended) An encapsulated product as claimed in claim 52 wherein said encapsulant is at least one member selected from the group consisting of:
acepromazine, acetaminophen, acetohexamide, acetohydroxamic acid, acetylcholine, acetyl cysteine, acyclovir, albendazole, alclometasone dipropionate, allopurinol, alprazolam, alprostadil, amcinoide, amantadine, amdinocillin, amikacin, amiloride, aminocaproic acid, aminophylline, aminosalicylate, aminosalicylic acid, amitriptyline hydrochloride, ammonium chloride, amobarbital, amodiaquine hydrochloride, amoxapine, amoxicillin, amphetamine sulfate, amphotericin, ampicillin, amprolium, acetazolamide, acetyldigoxin, acetylsalicylic acid, anileridine, anthraline, antipyrine, antivenin, apomorphine, apraclonidine, ascorbic acid, aspirin, acromycin, atropine, amoxicillin, anipamil, azaperone, azatadine maleate, azathioprine, azithromycin, aztreonam, bacampicillin, bacitracin, baclofen, barium salts, beclomethasone dipropionate, belladonna extract, bendroflumethiazide, benoxinate hydrochloride, benzethonium chloride, benzocaine, benzonatate, benzthiazide, benztropine mesylate, betain, betamethasone, betaxolol, betanechol chloride, biotin, biperiden, bisacodyl, bismuth, botulism antitoxin, bromocriptine mesylate, bromodiphenhydramine hydrochloride, bumetanide, bupivacaine, busulfan, butabarbital sodium, butalbital, combinations of butalbital, caffeine and aspirin and codeine, beta-carotene, calcifediol, calcium carbonate, calcium citrate, calcium salts, candididin, captopril, carbachol, carbamazepine, carbenicillin indanyl sodium, carbidopa, carbinoxamine maleate, carboprost tromethamine, carboxymethylcellulose, carisoprodol, casanthranol, cascara, castor oil, cefaclor, cefadroxil, cefamandole nafate, cefazolin, cefixime, cefoperazone, cefotaxime, cefprozil, ceftazidime, cefuroxime axetil, cephalexin, cephadrine, chlorambucil, chloramphenicol, chlordiazepoxide, chloroquine phosphate, chlormadinone acetate, chlorothiazide, chlorpheniramine maleate, chloroxylenol, chlorpromazin, chlorpropamide, chlorprothixene, chlorprothixene, chlortetracycline bisulfate, chlortetracycline hydrochloride, chlorthalidone, chlorzoxazone, cholecalciferol, cholera

AMENDMENT

vaccine, chromic chloride, chymotrypsin, cimetidine, cinoxazin, cinoxate, ciprofloxacin, cisplatin, clarithromycin, clavulanate potassium, clemastine fumarate, clidinium bromide, clindamycin hydrochloride, -palmitate and -phosphate, clioquinol, clofazimine, clofibrate, clomiphene citrate, clonazepam, cinnarizine, clonidine hydrochloride, clorsulon, clotrimazole, cloxacillin sodium, cyanocobalamin, cocaine, coccidioidin, cod liver oil, codeine, colchicine, colestipol, corticotropin, cortisone acetate, cyclacillin, cyclizine hydrochloride, cyclobenzaprine hydrochloride, cyclophosphamide, cycloserine, cyclosporine, cyproheptadine hydrochloride, cysteine hydrochloride, danazol, dapsone, dehydrocholic acid, demeclocycline, desipramine, desoximetasone, desoxycorticosterone acetate, dexamethasone, dexchlorpheniramine maleate, Dexpanthenol, Dextroamphetamine, dextromethorphan, diazepam, diazoxide, dibucaine, dichlorphenamide, dicloxacillin sodium, dicyclomine, dienestrol, diethylpropion hydrochlorid, diethylstilbestrol, diflunisal, digitalis, dicoumarol, digitoxin, digoxin, dihydroergotamine, dihydrostreptomycin, dihydrotachysterol, dihydroxyaluminium aminoacetate, dihydroxyaluminium sodium carbonate, diltiazem hydrochloride, dimenhydrinate, dimercaprol, diphenhydramine hydrochloride, diphenoxylate hydrochloride, diphtheria antitoxin, dipyridamole, disopyramide phosphate, disulfiram, dobutamine hydrochloride, docusate calcium, docusate sodium, dopamine hydrochloride, doxepin hydrochloride, doxycycline, doxycycline hydrate, doxylamine succinate, dronabinol, droperidol, drotaverine, dydrogesterone, dyphylline, guaifenesin, enalapril maleate, analaprilat, ephedrine, epinephrine, equulin, ergocalciferol, ergoloid mesylates, ergonovine maleate, ergotamine tartrate, erythrityl tetranitrate, erythromycin, estradiol, estriol, estrogene, estrone, estropipate, ethcrylic acid, ethambutol hydrochlorid, ethchlorvynol, ethinyl estradiol, ethionamide, ethopropazine hydrochloride, ethotoxin, ethynodiol diacetate, etidronate disodium, etoposide, eugenol, famotidine, fenoprofen, ferrous fumarate, ferrous gluconate, ferrous sulfate, flucytosine, fludrocortisone acetate, flunisolide, fluocinolone acetonide, fluocinonide, fluorescein sodium, fluorometolone,

AMENDMENT

fluorouracil, fluoxymesterone, fluphenazine, flurandrenolide, flurazepam, flurbiprofen, folic acid, furazolidone, flunitrazepam, furosemide, gemfibrozil, gentamicin, gentian violet, glutarate, glutethimide, glycopyrrolate, chorionic gonadotropin, gramicidin, griseofulvin, guaifenesin, guanabenz, guanadrelsulfate, halazone, haloperidol, haloprogin, halothane, heparin calcium, hepatitis virus vaccine, hetacillin potassium, hexylresorcinol, histamine phosphate, histidine, homatropine, histoplasmin, hydralazine hydrochloride, hydrochlorothiazide, hydrocodone bitartrate, hydrocortisone, hexobarbital, hydroflumethiazide, hydromorphone hydrochloride, hydroquinone, hydroxocobalamin, hydroxyamphetamine, hydroxychloroquine sulfate, hydroxyprogesterone caproate, hydroxyurea, hydroxine hydrochloride, hydroxine pamoate, hyoscyamine, hyoscyamine sulfate, ibuprofen, ifosfamide, imipramide, imipramide hydrochloride, indapamide, indomethacin, insulin, inulin, iocetamid, iodoquinol, iohexol, iopamidol, ipecac, ipodate calcium, ipodate sodium, isocarboxacid, isoetharine hydrochloride, isoflurane, isoniacid, isopropamide iodine, isoproterenol hydrochloride, isosorbide dinitrate, isotretinoin, isoxsuprine hydrochloride, kanamycin sulfate, ketoprofen, ketoconazole, labetalol hydrochloride, lanolin, leucine, leucovorin calcium, levamisole hydrochloride, levocarnithine, levodopa, levonorgestrel, levorphanol tartrate, levothyroxine sodium, lidocaine, lincomycin hydrochloride, lindane, liothyronine sodium, liotrix, lisinopril, lithium carbonate, loperamide hydrochloride, loracarbef, lonetil, lorazepam, lovastatin, loxapine, lysine, mafenide acetate, magaldrate, magnesium carbonate, magnesium chloride, magnesium gluconate, magnesium oxide, other magnesium salts, malathion, manganese salts, manganese, maprotiline hydrochloride, mazindol, measles virus vaccine, mebendazole, mebrofenin, mecamylamine hydrochloride, meclizine hydrochloride, mecloxycline, meclofenamate sodium, medroxyprogesterone acetate, mefenamic acid, megestrol acetate, meglumine, melphalan, menadiol sodium diphosphate, menadione, menotropine, meperidine, mephentytoin, mephobarbital, meprednisone, meprobamate, mercaptopurine, mesoridazine besylate, mestranol, metaproterenol sulfate, metaraminol

AMENDMENT

D | bitartrate, methacycline hydrochloride, methadone hydrochloride, methamphetamine hydrochloride, methazolamide, methdilazine, methenamine, methicillin sodium, methimazole, methionine, methocarbamol, methotrexate, methoxsalen, methoxyflurane, methsuximide, methyclothiazide, methylbenzethonium chloride, methyldopa, methylergonovine maleate, methylphenidate hydrochloride, methylprednisolone, methyltestosterone, methysergide maleate, metoclopramide, metolazone, meoprolol tartrate, metronidazole, metyrapone, metyrosine, mexiletine hydrochloride, mexiletine hydrochloride, miconazole, minocycline hydrochloride, minoxidil, mitomycin, mitotane, molindone hydrochloride, monobenzone, morphine sulfate, mupirocin, medazepam, mefruside, methandrostenolone, methylsulfadiazine, nadolol, nafcillin, nafcillin sodium, nalidixic acid, nalorphine, naloxone, nandrolone decanoate, nandrolone phenpropionate, naproxen, natamycin, neomycin, neomycin sulfate, neostimine bromide, niacin, nitrofurantoin, nalidixic acid, nifedipine, nitrazepam, nitrofurantoin, nitroglycerine, nitromerson, nizatidine, nonoxynol 9, norethindrone, norethindrone acetate, norfloxacin, norgestrel, nortriptyline hydrochloride, noscapine, novobiocin sodium, nystatin, opium, oxacillin sodium, oxamniquine, oxandrolone, oxazepam, oxprenolol hydrochloride, oxtriphylline, oxybenzone, oxybutynin chloride, oxycodone hydrochloride, oxycodone, oxymetazoline hydrochloride, oxymetholone, oxymorphone hydrochloride, oxyphenbutazone, oxytetracycline, padimate, panreatin pancreatin, pancrelipase, papain, panthenol, papaverin hydrochloride, parachlorophenol, paramethasone acetate, paregoric, paromomycin sulfate, penicillamine, penicillin, penicillin derivatives, pentaerythritol tetranitrate, pentazocine, pentazocine hydrochloride, pentazocine salts, pentobarbital sodium, perphenazine, pertussis, phenacetin, phenazopyridine hydrochloride, phendimetrazine tartrate, phenelzine sulfate, phenmetrazine hydrochloride, phenobarbital, phenolphthalein, phenoxybenzamine hydrochloride, phentermine hydrochloride, phenylalanine, phenylbutazone, phenylephrine hydrochloride, phenylpropanolamine hydrochloride, physostigmine, phytonadione, pilocarpine ,

AMENDMENT

pimozide, pindolol, piperazine, piroxicam, plicamycin, poliovirus vaccine inactivated, polycarbophil, polymyxin b sulfate, polythiazide, potassium chloride, potassium citrate, potassium gluconate, potassium iodine, potassium sodium tartrate, povidone iodine, pralidoxime chloride, pramoxine hydrochloride, pramezam, prazepam, praziquantel, prazosin hydrochloride, prazosin hydrochloride, prednisolone, prilocaine, primaquine, primidone, probenecid, probucol, procainamide hydrochlorid, procaine hydrochloride, procarbazine hydrochloride, prochlorperazine, prochlorperazine maleate, procyclidine hydrochloride, progesterone, proline, promazine, promazine hydrochloride, promazine, promethazine, promethazine hydrochloride, propafenone hydrochloride, propantheline, proparacaine hydrochloride, propoxycaine hydrochloride, propoxyphene hydrochloride, propoxyphene napsylate, propanolol hydrochloride, propyliodone, propylthiouracil, propylthiouracil, protriptyline hydrochloride, pseudoephedrine hydrochloride, pumice, pyrantel pamoate, pyrazinamide, pyrethrum extract, pyridostigmine bromide, pyridoxine hydrochloride, pyrilamine maleate, pyrimethamine, pyroxylin, pyrvinium pamoate, phenacetin, phenytoin, prednisone, quinidine gluconate, quinidine sulfate, rabies vaccine, racepinephrine, ranitidine, rauwolfia serpentina, resorcinol, ribavirin, riboflavin, rifampin, ritodrine, rubella virus vaccine, saccharin, saccharin sodium, salicylamide, salicylic acid, salsalata, scopolamine, secobarbital sodium, selenius acid, selenium sulfate, sennaserine, simethicone, sodium ascorbate, sodium bicarbonate, sodium fluoride, sodium gluconate, sodium iodide, sodium lactate, sodium nitrite, sodium ditroprusside, sodium salicylate, spironolactone, stannozolol, streptomycin, sucralfate, sulfacetamide, sulfadiazine, reserpine, sulfadioxine, sulfamerazine, sulfamethazine, sulfamethizole, sulfamethoxazole, sulfamethoxydiazine, sulfapyridin, sulfasalazine, sulfaperin, sulfathiazole, sulfisoxazole, sulfisopyrazone, sulindac, suprofen, stilains, tamoxifen citrate, temacepam, terbutaline sulfate, terfenadine, terpin, testolacton, testosterone, tolazamide, tolbutamide, tetracaine, tetracycline, tetrahydrocyclyne, theophylline, thiabendazole, thiamine hydrochloride, thiamin, thiamylal, thiethylperazine

AMENDMENT

thimerosal, thioguanine, thioridazine hydrochloride, thistrepton, thiotepla, thiothixene, threonine, thyroid, ticarcillin, timolol, tioconazole, ~~titanium dioxide~~, tolazamide, tolbutamide, tolmetin, tolnaftate, trazodone hydrochloride, tretinoïn, triacetin, triamcinolone, triamterene, triazolam, trichorfon, trichlormethiazide, trientine hydrochloride, trifluoperazine hydrochloride, triflupromazine, trihexyphenidyl hydrochloride, trimeprazine tartrate, trimethadione, trimethobenzamide hydrochloride, trimethoprim, trioxsalen, tripelennamine, triprolidine, trisulfapyrimidine, tropicamide, trypsin, tryptophan, tuberculin, tyloxapol, tyropanoate sodium, tyrosine, tyrothricin, thyrothricin betamethasone, thiotic acid, sotalol, salbutamol, norfenefrine, silymarin, dihydroergotamine, buflomedil, etofibrate, indomethacin, urea, valine, valproic acid, vancomycin hydrochloride, vasopressin, verapamil, vidarabine, vinblastine, vincristine, vitamins, warfarin, yellow fever vaccine, zinc acetate, zinc carbonate, zinc chloride, zinc gluconate, beta acetyl digoxin, haloperidol, ISMN, amitriptylin, diclofenac, nifedipine, verapamil, pyritinol, nitrendipin, doxycycline, bromhexine, methylprednisolone, clonidine, fenofibrate, allopurinol, pirenyepine, levothyroxin, tamoxifen, methyldigoxin, o-(beta-hydroxymethyl)-rutoside, propicillin, aciclovir mononitrate, paracetamol, naftidrofuryl, pentoxifylline, propafenone, acebutolol, L-thyroxin, tramadol, bromocriptine, loperamide, ketotifen, fenoterol, cadobelisate, propanolol, enalaprilhydrogen maleate, bezafibrate, ISDN, gallopamil, xantinol nicotinate, digitoxin, flunitrazepam, bencyclane, dexapanthenol, pindolol, lorazepam, diltiazem, piracetam, phenoxyethylpenicillin, furosemide, bromazepam, flunarizin, erythromycin, metoclopramide, acemetacin, ranitidin, biperiden, metamizole, doxepin, dipotassium chloroazepate, tetrazepam, estramustine phosphate, terbutaline, captopril, maprotiline, prazosin, atenolol, glibenclamide, cefaclor, etilfrine, cimetidine, theophylline, hydromorphone, ibuprofen, primidone, clobazam, oxaceprol, medroxyprogesterone, flecainid, pyridoxal 5 phosphate glutamate, hymecromone, etofylline clofibrate, vincamine, cinnarizine, diazepam, ketoprofen, flupentixol, molsimine, glibornuride,

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dimetinden, melperone, soquinolol, dihydrocodeine, clomethiazole, clemastine, glisoxepide, kallidinogenase, oxyfedrine, baclofen, carboxymethylcysteine, thioridazine, betahistine, L-tryptophan, murtol, bromelaine, prenylamine, salazosulfapyridine, astemizol, sulpiride, benzerazide, dibenzepine, acetylsalicylic acid, miconazol, nystatin, ketoconazole, sodium picosulfate, coltyramine, gemfibrocil, rifampicin, fluocortolone, mexiletin, amoxicillin, terfenadrin, mucopolysaccharide polysulfate, triazolam, mianserin, tiaprofenic acid, amezinium methylsulfate, mefloquine, probucol, quinidine, carbamazepine, L-aspartate, penbutolol, piretanide, aescin, amitriptyline, cyproterone, sodium valproinate, mebeverine, bisacodyl, 5-aminosalicylic acid, dihydralazine, magaldrate, phenprocoumon, amantadine, naproxen, carteolol, famotidine, methyldopa, auranofine, estriol, nadolol, levomepromazine, doxorubicin, medofenoxate, azathioprine, flutamide, norfloxacin, fendiline, and prajmalium bitartrate.

72. (Currently Canceled)

73. (Original) An encapsulated product according to claim 52 wherein said discrete, solid particles have a diameter of up to about 10 mm.

74. (Currently Canceled)

75. (Currently Amended) An encapsulated product according to claim 52 wherein said encapsulant is at least one member selected from the group consisting of antioxidants, phytochemicals, hormones, vitamins, pro-vitamins, minerals, microorganisms, prebiotics, ~~probiotics, trace elements, essential and/or highly unsaturated fatty acids, antibiotics, nutritional supplements, enzymes, formations~~ formulations containing zidovudine, macromolecular polypeptides, aromatic nitro and nitroso compounds and their metabolites useful as anti-viral and anti-tumor agents, HIV protease

AMENDMENT

inhibitors, antibiotics, viruses, ~~pigments~~, steroids, oligopeptides, dipeptides, amino acids, flavor components, fragrance components, detergents and surface-active components, lipid derivatives of phosphonatides, amphiphilic polymers, adenosine derivatives, sulfated tannins, monoclonal antibodies, and metal complexes of water-soluble texathyrin.

76. (Original) An encapsulated product according to claim 52 wherein said encapsulant is at least one member selected from the group consisting of herbicides, pesticides, insecticides, rodenticides, and fungicides.

77-78. (Currently Canceled)

79. (Currently Amended) An encapsulated product according to claim 52 wherein said plasticized matrix material is further comprises at least one member selected from the group consisting of starches, cyclodextrins, dextrans, monosaccharides, disaccharides, polyvinylpyrrolidone, copolymers of N-vinylpyrrolidone and vinyl acetate, polyvinyl alcohol, cellulose esters, cellulose ethers, and polyethylene glycol.

80. (Currently Canceled)

81. (Currently Amended) An encapsulated product according to claim 52
wherein:

the amount of the matrix material is from about 60% by weight to about 95% by weight, based upon the weight of the final product, and

the amount of said at least one component used to control the rate of release of the encapsulant is from about 5% by weight to about 50% by weight, based upon the weight of the matrix material, and the amount of said encapsulant is from about 1% by weight to about 85% by weight, based upon the weight of the matrix material.

AMENDMENT

82. (Original) An encapsulated product according to claim 52 wherein said encapsulant comprises at least one member selected from the group consisting of enzymes and microorganisms.

83. (Currently Amended) An encapsulated product comprising discrete, solid particles having a substantially uniform shape wherein each particle comprises:

~~a uniform dispersion of an encapsulant dispersed throughout a substantially homogeneous plasticized matrix material, said matrix material comprising at least one member selected from the group consisting of durum wheat, semolina, vital wheat gluten, soy protein, hydrocolloids, casein, and gelatin, and at least one plasticizer,~~

wherein said encapsulant comprises at least one pharmaceutical component, neutraceutical component, nutritional component, fragrance component, or biologically active component.

wherein the encapsulant and plasticized matrix material form an at least substantially homogeneous mixture, and

wherein the amount of said encapsulant is from about 3% by weight to about 50% by weight, based upon the weight of the matrix material.

84. (Original) An encapsulated product according to claim 83 wherein said matrix material comprises semolina or durum wheat.

85. (Original) An encapsulated product according to claim 83 wherein said encapsulant comprises at least one member selected from the group consisting of enzymes and microorganisms.

86. (Currently Amended) An encapsulated product comprising discrete, solid particles having a substantially uniform shape wherein each particle comprises:

AMENDMENT

a uniform dispersion of an encapsulant dispersed within throughout a substantially homogeneous plasticized matrix material, and at least one plasticizer, said matrix material comprising a protein,

and wherein said encapsulant comprising comprises an enzyme or microorganism.

87. (Original) An encapsulated product according to claim 86 wherein said protein is derived from a plant source.

88. (Original) An encapsulated product according to claim 87 wherein said protein comprises gluten.

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89. (Currently Amended) An encapsulated product according to Claim 86 comprising discrete, solid particles having a substantially uniform shape and a particle size of less than 1 mm, wherein each particle comprises a dispersion of an encapsulant dispersed within a substantially homogeneous matrix material, said matrix material comprising an uncooked starch.

90. (Previously Added) An encapsulated product according to claim 25, where said encapsulant is omega-3 fatty acids.

91. (NEW) An encapsulated product according to claim 25, comprising about 3% by weight to about 50% by weight of the encapsulant, based upon the weight of the matrix material.

92. (NEW) An encapsulated product according to claim 25, comprising about 5% by weight to about 20% by weight of the encapsulant, based upon the weight of the matrix material.

AMENDMENT

93. (NEW) An encapsulated product according to claim 25, wherein the encapsulant is in liquid form.

94. (NEW) An encapsulated product according to claim 25, wherein the encapsulant is in solid form.

95. (NEW) An encapsulated product according to claim 52, comprising about 3% by weight to about 50% by weight of the encapsulant, based upon the weight of the matrix material.

96. (NEW) An encapsulated product according to claim 52, comprising about 5% by weight to about 20% by weight of the encapsulant, based upon the weight of the matrix material.

97. (NEW) An encapsulated product according to claim 83, comprising about 5% by weight to about 20% by weight of the encapsulant, based upon the weight of the matrix material.

98. (NEW) An encapsulated product according to claim 86, comprising about 3% by weight to about 50% by weight of the encapsulant, based upon the weight of the matrix material.

99. (NEW) An encapsulated product according to claim 86, comprising about 5% by weight to about 20% by weight of the encapsulant, based upon the weight of the matrix material.

AMENDMENT

100. (NEW) An encapsulated product according to claim 90, comprising about 5% by weight to about 20% by weight of the encapsulant, based upon the weight of the matrix material.